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09/104,947	06/25/1998	KENT J. FORBORD	1169.12-0314	4927

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SHAWN B. DEMPSTER, SEAGATE TECHNOLOGY LLC  
INTELLECTUAL PROPERTY DEPT SHK2LG  
1280 DISC DRIVE  
SHAKOPEE, MN 55379-1863

EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT

PAPER NUMBER

2652

DATE MAILED: 11/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/104,947

Applicant(s)

FORBORD, KENT J.

Examiner

William J. Klimowicz

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-11, 13, 15-18, 20, 22, 25, 30 and 33-35 is/are pending in the application.
- 4a) Of the above claim(s) 8-10 and 15-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 11, 13, 18, 20, 22, 25, 30 and 33-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Status***

Claims 1-4, 6-11, 13, 15-18, 20, 22, 25, 30 and 33-35 are currently pending.

Claims 5, 12, 14, 19, 21, 23, 24, 26-29, 31 and 32 have been cancelled.

Claims 8-10 and 15-17 are withdrawn from further consideration by the Examiner, 37

CFR 1.142(b), as being drawn to a non-elected species.

### ***Claim Objections***

Claim 7 is objected to because of the following informalities:

Claims 7 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 7 recites a spindle motor which already is incorporated into claim 1, from which they depend.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2652

Claims 1-4, 6, 7, 11, 13, 18, 20, 22, 25, 30 and 33-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 (line 2), the recitation of the phrase "standard form factor" is vague and indefinite. More concretely, disk drive "standards" are subject to not only changes over time, but can be considered subjective and variable. The "standard form factor" of a disk and its associated drive are not a fixed quantity, but are variable parameters. There is no express direct correspondence in the specification of what the definition of "standard form factor" with respect to a fixed number. Although the specification cites a 84 mm disk diameter and its associated 3 ½ inch configuration, the offending claim is apparently are not limited to such dimensions. What happens in the future when the "standard" disk diameter is less than the specification's 84 mm disk diameter, e.g., say a standard 65 mm disk? Would the claim scope then change "on the fly"? What was once covered under the claim (84 mm disk), would now be excluded due to a new defined "standard" and what was once not covered, (e.g., 65 mm disk) would now be covered, as being defined as a new "standard."

Additionally, although the specification attempts to equate a "standard" sized disk drive and an associated "standard" sized diameter disk (e.g., 3 ½ disk drive form factor with a 95 mm diameter disk), as is evidenced by the prior art, this standard is not necessarily an absolute or universal standard. That is, as is discussed in the rejection, *infra*, there is shown diameter disks which do not correspond to the known "standard" as alleged by the Applicant.

The purpose of the second paragraph of 35 USC 112 is to allow the public to know exactly what the patent covers, so that those who would approach the area circumscribed by the

Art Unit: 2652

claims of a patent may more readily and accurately determine the boundaries of protection involved and evaluate the possibility of infringement and dominance. *In re Hammack*, 427 F.2d 1378, 166 USPQ 204 (CCPA 1970).

No evidence has been shown by the Applicant that a universal or absolute “standard” exists in the field of disk drive manufacture for sizing a disk diameter to its disk drive housing, *particularly* for disk drive that are smaller than 3 ½ inch form factors, as encompassed by claim 1, which, if patented, would include unknown standards for disk drives smaller than 3 ½ inch form factors and their unknown “associated” standard disk diameters.

The scope of the claims, in terms of its metes and bounds, is not *fixed* in any way, but continually would change as the disk drive industry standards continually changed. As has been held, a claim may be rendered indefinite by reference to an object that is variable. See *Ex parte Brummer*, 12 USPQ2d 1653 (Bd. Pat. App. & Inter. 1989). In the instant situation, the “object” in this case is considered to be a variable standard disk size or configuration.

The scope of the claim, by virtue of its recitation of continually varying standards, is in a state of *continual flux*.

The metes and bounds of the claims cannot in any way provide the public with ample notification to what is and *may* possibly be covered. The scope of the claim cannot be readily ascertained, to any reasonable objective degree. As contrasted with a standard of measurement (e.g., time measured in seconds, minutes, hours, etc.), disk drive “standards” are not universal and are continually changing to meet the trend toward smaller disk drives.

Additionally, e.g., with regard to claim 1, the phrase “each disc has a diameter smaller than a maximum allowable diameter of a rigid disc associated with the standard form factor” is

Art Unit: 2652

completely nebulous. How is this “association” defined, and who defines it? The language is completely subjective and cannot in any way define the metes and bounds of the claim in a “definite” manner as prescribed by the 35 USC 112 second paragraph.

In summation, claims that not only flex the metes and bounds of their scope, but morph from one form into another, are not deemed to fulfill the statutory requirements of 35 USC 112 2<sup>nd</sup> paragraph.

Additionally, with regard to claim 1 (lines 10-17), the phrase “whereby a design speed of a rotating stack of smaller than maximum allowable diameter discs is substantially greater than a design speed of a rotating stack of maximum allowable diameter discs while maintaining substantially similar power and operating temperature requirements as a disc drive containing a stack of maximum allowable diameter discs” is vague and ambiguous.

More concretely, it is unclear, in light of the instant specification, as to what is considered a substantially greater design speed. Is it 10 percent above an arbitrary design speed, 5 percent, 25 percent, 50 percent, 100 percent? The instant specification provides no definition or adequate description which would provide any basis for determining the metes and bounds of such a claim limitation.

Similarly, it is unclear, in light of the specification, as to the scope of “substantially similar power and operating temperature requirements.” The specification is completely silent with regard to any definition, express or otherwise implied, that would allow a meaningful understanding of “substantially similar.” Is it 10 percent differential, 5 percent, 25 percent, 50 percent 100 percent? The instant specification again affords no definition or adequate

Art Unit: 2652

description which would provide any basis for determining the metes and bounds of such a claim limitation.

This rejection is also applicable to claim 30 (lines 25-32) for the rejection, *supra*.

As per claim 3 (lines 6-9), the phrase “where an average seek time for a movement of the transducer by the actuator arm from a current data track of the disc to a desired destination track on the disc is substantially less for the rotating stack of smaller than the maximum allowable diameter discs than for a rotating stack of maximum allowable diameter discs” is similarly vague and ambiguous. It is indefinite, in light of the instant specification, as to the metes and bounds of the phrase “substantially less.”

Additionally, with regard to claim 30 (lines 15-18), the phrase “a number of the stack of smaller than maximum allowable diameter discs being greater than a number of maximum diameter discs contained in the disc drive housing” is vague and ambiguous. It is indefinite since the number of disks in a 3 ½ inch disk drive form factor, for example, differ from drive to drive. There may be only a single disk, two disks, 6 disks, etc. It is unclear as to the basis of comparison of the maximum allowable disk drive in terms of disk number. Is the claim referring to a single-disk disk drive, a dual-disk disk drive, etc?

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled

Art Unit: 2652

in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With regard to claim 4, line 2, the phrase "a magnetic disc that has a diameter that is at least 2.0% smaller than the maximum allowable diameter of 95 mm" has no support in the disclosure as originally filed. This new limitation now encompasses a broader range of disk diameter values as it relates to a 95 mm disc that originally disclosed.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 7, 22 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Takatsuka et al. (JP 04-205776 A).

As per claim 1, Takatsuka et al. (JP 04-205776 A) discloses a disc drive assembly including: a single disc drive housing (1, 14) comprising a standard form factor (e.g., 5 ¼ inch or 3 ½ inch; page 13, last paragraph of enclosed English translation) having a single spindle motor (4) within the housing (1, 14); and a disc drive supported in the housing (1, 14) having: a stack of rotatable rigid recording discs (e.g., 9 or 10) mounted to a hub (FIGS. 1, 2) where each disc (9, 10) has a diameter smaller than a maximum allowable diameter of a rigid disc (disc 8) associated with the standard form factor (e.g., see, *inter alia*, page 6, second paragraph, page 9 bridging page 10, page 13 last paragraph of English translation, etc.), the hub being operatively



Art Unit: 2652

configured for mounting on the spindle motor, whereby a design speed of a rotating stack of smaller than maximum allowable diameter discs (9, 10) is substantially greater than a design speed of a rotating stack of maximum allowable diameter discs (8) while maintaining substantially similar power and operating temperature requirements as a disc drive containing a stack of maximum allowable diameter discs. See, *inter alia*, e.g., page 11, first and second paragraphs of English translation.

As per claim 3, wherein an actuator assembly (6) is provided for reading data from and writing data to a selected one of the rigid recording discs (9, 10) which comprises at least one actuator arm (arm of carriage (6)) with a transducer (7), the transducer (7) being attached to a distal end of the actuator arm, with each actuator arm operating to position each transducer (7) adjacent a respective recording surface of a rotating rigid recording disc (9, 10) and further where an average seek time for a movement of the transducer by the actuator arm from a current data track of the disc to a desired destination track on the disc is "substantially less" for the rotating stack of smaller than the maximum allowable diameter discs (9, 10) than for a rotating stack of maximum allowable diameter discs (8). This is at least inherent, since the distance between adjacent tracks would be smaller since the distance between tracks for the 3 ½ inch disk, as compared to the 5 ¼ disk, is smaller (i.e., the tpi density increases in order to maintain the same capacity for the 3 ½ disk and the 5 ¼ inch disk – see page 14 last paragraph through page 15 first paragraph of enclosed English translation).

As per claim 4, wherein a magnetic recording disc that has a diameter that is at least 2.0% smaller than the maximum allowable diameter of 95 mm. See, e.g., page 9, bridging page 10 of English translation.

Art Unit: 2652

As per claim 7, further comprising a spindle motor (4).

As per claim 22, where the reduction in required torque correspondingly substantially reduces a run current required by the spindle motor (4) to rotate a stack of smaller than maximum allowable diameter discs (9, 10) than is required to rotate the stack of maximum allowable diameter discs (8). See, e.g., page 11, first paragraph of enclosed English translation.

As per claim 25, where a number of smaller than maximum allowable diameter discs (9, 10) in the stack is greater than a number of maximum allowable diameter discs (8) in the stack contained in a single disc drive housing in the standard form factor. That is, there exists 5 ¼ disk drives with a number of discs less than the disclosed eight disks.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 6, 11, 13, 18, 20, 30 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takatsuka et al. (JP 04-205776 A).

See the description of Takatsuka et al. (JP 04-205776 A) in the preceding paragraph, *supra*.

With regard to claims 2, 11, 18 and 30, although Takatsuka et al. (JP 04-205776 A) does not expressly show a standard 3 ½ inch configuration disk drive, Official notice is taken that such disk drive standard configurations are notoriously old and well known in the art.

Art Unit: 2652

Given the teaching of Takatsuka et al. (JP 04-205776 A), i.e., providing smaller than maximum allowable diameter disks within disk drive housings constructed for maximum allowable diameter disks, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of providing smaller sized diameter disk within a disk drive housing built for larger diameter disks, as being applied to a 3 ½ inch disk drive.

The rationale is as follows: one of ordinary skill in the art at the time the invention was made to provide the teachings of providing smaller sized diameter disk within a disk drive housing built for larger diameter disks, as being applied to a 3 ½ inch disk drive in order to provide the benefits espoused by Takatsuka et al. (JP 04-205776 A), including providing cheaper disks, reducing the size of the overall HDA, whereby the PCB packaging dimensions can be made larger; HDA sway space can be made larger, and the weight/inertial moment and gyro moment of the motor bearing becomes smaller. See page 14, second paragraph of enclosed English translation.

Similarly, as per claim 6, 9 and 30, although Takatsuka et al. (JP 04-205776 A) does not explicitly disclose wherein each of the magnetic recording discs has a diameter of 84 mm, given the teaching of Takatsuka et al. (JP 04-205776 A), i.e., providing smaller than maximum allowable diameter disks within disk drive housings constructed for maximum allowable diameter disks, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Takatsuka et al. (JP 04-205776 A) of providing smaller sized diameter disk within a disk drive housing built for larger diameter disks, as being applied to an 84 mm disk.

Art Unit: 2652

The rationale is as follows: one of ordinary skill in the art at the time the invention was made to provide a smaller sized diameter disk of 84 mm within a disk drive housing built for larger diameter disks, (a concept already taught by Takatsuka et al. (JP 04-205776 A) for the reasons disclosed by Takatsuka et al. (JP 04-205776 A) and discussed, *supra*) in order to provide the benefits espoused by Takatsuka et al. (JP 04-205776 A), including providing cheaper disks, reducing the size of the overall HDA, whereby the PCB packaging dimensions can be made larger; HDA sway space can be made larger, and the weight/inertial moment and gyro moment of the motor bearing becomes smaller. See page 14, second paragraph of enclosed English translation.

Also, as per claims 13, 20 and 30, although Takatsuka et al. (JP 04-205776 A) does not explicitly disclose wherein the operational design speed of the spindle motor is operational at 10,000 rpm, Official notice is taken that such design speeds are notoriously old and well known in the art.

Moreover, given the teaching of Takatsuka et al. (JP 04-205776 A), i.e., providing smaller than maximum allowable diameter disks within disk drive housings constructed for maximum allowable diameter disks, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Takatsuka et al. (JP 04-205776 A) of providing smaller sized diameter disks within a disk drive housing built for larger diameter disks, as being applied to spindle motor with an operational design speed of 10,000 rpm.

The rationale is as follows: one of ordinary skill in the art at the time the invention was made to provide the teachings of Takatsuka et al. (JP 04-205776 A) of providing smaller sized diameter disks within a disk drive housing built for larger diameter disks, as being applied to

Art Unit: 2652

spindle motor with an operational design speed of 10,000 rpm (such speeds are now conventional) in order to provide the benefits espoused by Takatsuka et al. (JP 04-205776 A), including providing cheaper disks, reducing the vertical height and size of the overall HDA, whereby the PCB packaging dimensions can be made larger; HDA sway space can be made larger, and the weight/inertial moment and gyro moment of the motor bearing becomes smaller, within a conventionally rated 10,000 rpm disk drive. Additionally, as is notoriously old and well known, higher disk operating speeds allow for reduce disk latency and faster retrieving of data from a disk within a disk drive.

Additionally, with regard to claims 11 and 18 Takatsuka et al. (JP 04-205776 A) does not expressly disclose a prescribed number of disks within his drive, as being 6 or 12, Official notice is taken that the number of disks used within a disk drive is based on the desired drive capacity for information, a concept that is notoriously old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the smaller than maximum allowable diameter-disk disk drive of Takatsuka et al. (JP 04-205776 A) with more than the disclosed eight disks (such as 12 disks) or less than the eight disks, such as six disks.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the smaller than maximum allowable diameter-disk disk drive of Takatsuka et al. (JP 04-205776 A) with more than the disclosed eight disks (such as 12 disks) or less than the eight disks, such as six disks as set forth in claims 11 and 18 in order to increase the capacity of the disk drive thereby enabling more information to be stored in the system by providing more than eight disks, or conversely by providing less than eight disks, such as six disks in order to reduce

Art Unit: 2652

the costs (less disks); concepts which are well known, established and appreciated by one having general knowledge within the disk drive art.

Additionally, with regard to claims 30, 33, 34 and 35, although Takatsuka et al. (JP 04-205776 A) does not expressly disclose a prescribed "average" access time as being less than 7.7 msec, inclusive of being in the range of 5.7 to 7.7 msec, Official notice is taken that disk drives wherein the access time within a disk drive is desired to be as low as possible, in order to reduce the disk drive latency and enhance disk drive processing speed, is a concept that is notoriously old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the smaller than maximum allowable diameter-disk disk drive of Takatsuka et al. (JP 04-205776 A) with an access time as being less than 7.7 msec, inclusive of being in the range of 5.7 to 7.7 msec.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the smaller than maximum allowable diameter-disk disk drive of Takatsuka et al. (JP 04-205776 A) with an access time as being less than 7.7 msec, inclusive of being in the range of 5.7 to 7.7 msec in order to reduce disk drive latency and enhance disk drive processing information speed, a concept that is well known, appreciated and established in the disk drive art.

Note that there is no structural elements recited with the aforementioned claims not already disclosed by Takatsuka et al. (JP 04-205776 A), that would differentiate the claims so as to allow such an access time range; the claims merely recite a desired range of variables with no structural support that would define over structure not already found within Takatsuka et al. (JP 04-205776 A).

Art Unit: 2652

Absent a showing of criticality (i.e., unobvious or unexpected results), the 84mm sized diameter disk, 10,000rpm rated disk speed, and an actuator average access time within a range of 5.7msec to 7.7 msec, is considered to be within the level of ordinary skill in the art, given the teachings of Takatsuka et al. (JP 04-205776 A), i.e., providing smaller than maximum allowable diameter disk within disk drive housings constructed for larger diameter disks.

That is to say, Takatsuka et al. (JP 04-205776 A) teaches a *result-effective variable*; decrease disk diameter size within a disk drive built for larger disks, provide larger packaging PCB dimensions, increased HDA sway space and longer motor bearing life.

The prosecution history as a whole does not point to any “unexpected” results associated with a 84mm diameter disk, as opposed to any other disk smaller than a 95mm diameter disk, a 10,000 rpm spindle motor speed, a 3 ½ inch disk drive configuration and actuator average access times within ranges of 5.7 msec to 7.7 msec.

Additionally, the law is replete with cases in which when the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the Applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir.

Art Unit: 2652

1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

### *Response to Arguments*

Applicant's arguments with respect to the pending claims, as it pertains to applied art, have been considered but are moot in view of the new ground(s) of rejection.

The Applicant alleges that the claims of the instant application are not indefinite under 35 USC 112 second paragraph. See pages 7 through 9 of Applicant's response, filed October 18, 2002.

The Examiner respectfully disagrees. Moreover, the Applicant contends that "[t]he maximum allowable diameter may be readily calculated by one skilled in the art by looking at the width of the form factor, the thickness of the housing walls, and any clearances needed for rotation of the disc or stack of discs." *Id.* at page 7, second paragraph.

The Examiner maintains, as discussed, *supra*, that there is no known or absolute standard for a disk drive and its associated disk diameter therewithin. What would happen if some future inventor or disk drive designer, establishes a disk diameter of greater than 95 mm for the 3 ½ disk drive? For example, a 96 mm diameter disk that would physically be capable for fitting within a standard sized 3 ½ inch form factor. As just an example, the inventor arrives at this new standard, by providing, for instance a stronger material sidewall that is as rigid as a previous sidewall disk drive, but allows a larger diameter disk. Such a disk might be provided for a larger capacity. What was previously not covered by the claims, as set forth by the Applicant, i.e., a 95 mm diameter disk within a 3 ½ form factor housing, would now *incredibly* be covered by the



Art Unit: 2652

claims of the instant invention (particularly claim 1). The claim scope would completely morph from what was not formerly covered, to a complete array of disk drives (that were once considered "prior art") that are now being manufactured or are currently on the market. This would apply to any future standard association between smaller form factors (less than 3 ½ disk drive form factors) and what the Applicant considers to be "maximum allowable diameter disks" for such disk drives. *The claim scope of the instant application, if issued, would not be dependent upon the invention described and encompassed by the claims of the instant invention, but would be dependent upon the future possible acts of another inventor or disk drive manufacturer and its desire to establish a new "standard."*

Additionally, the instant specification is completely silent with regard to any formulaic or scaling factor that would allow the public to know what is to be considered a standard diameter disk and its associated standard disk drive housing.

Clearly, they do not rise to the level required of 35 USC 112 second paragraph.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

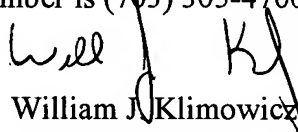
Art Unit: 2652

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (703) 305-3452. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

  
William J. Klimowicz  
Primary Examiner  
Art Unit 2652

WJK  
November 25, 2002